

1 Feb 1993

AN2NV-C
ANALYZER, NETWORK

1. GENERAL. This procurement requires a scalar network analyzer.

2. CLASSIFICATION. Type II, Class 5, Style E, and Color R in accordance with MIL-T-28800 for shipboard applications.

3. MEASUREMENT CAPABILITIES. The equipment shall be capable of absolute power and power ratio measurements within the minimum specifications identified below. A display of VSWR or a chart for converting return loss and reflection coefficient to VSWR shall be provided.

3.1 Frequency range. 100 MHz to 40 GHz.

3.2 Dynamic range. -50 dBm to 10 dBm.

3.3 Input channels. Channel A, channel B, and a reference channel. Ratio measurement capabilities shall be provided for channel A to reference and channel B to reference.

3.4 Resolution. Selectable resolutions such as 0.2, 0.5, 1, 5, and 10 dB per division shall be provided.

3.5 Display offset. ± 59 dB for each channel. Resolution: 0.1 dB.

3.6 Frequency response. ± 1 dB or less.

3.7 Accuracy. ± 1.1 dB, excluding mismatch and frequency response errors, for inputs that are 10 to 50 dB from the reference.

3.8 Impedance. 50 ohms nominal.

3.9 VSWR. 1.7 maximum.

3.10 Display. The equipment shall contain a rectangular graphic display of no less than 76 mm (3 in) X 102 mm (4 in). The horizontal and vertical centerlines shall be marked in 0.2 division subincrements and one division cardinal increments. In lieu of division increments the equipment may be provided with positionable markers that provide a readout of frequency and amplitude.

3.11 External input. The equipment shall be provided with an external sweep input compatible with a 0 to 10V ramp signal such that the ramp will cause a full-screen horizontal deflection of the CRT beam.

4. GENERAL REQUIREMENTS.

4.1 Power source. MIL-T-28800 nominal power source requirements are invoked. Maximum power consumption: 125W.

4.2 Weight. 30 kg (66 lb) maximum.

4.3 Lithium batteries. Per MIL-T-28800, lithium batteries are prohibited without prior authorization. A request for approval for the use of lithium batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.

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4.4 Accessories. Shielded open, shielded short, 50 ohm termination, 10 dB pad, 50 ohm power splitter, detectors (2 ea), and return loss bridge.

4.5 Connectors. Connectors shall allow 100 MHz to 40 GHz operation.